



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

December 9, 1983

Mr. LeRoy Fyock  
Environmental Coordinator  
Chevron Resources Company  
Manila Star Route  
Vernal, Utah 84078

Re: Conditional Tentative Approval  
Vernal Phosphate Operations  
ACT/047/008  
Uintah County, Utah

Dear Mr. Fyock:

This is to inform you that the Division of Oil, Gas and Mining hereby issues a conditional tentative approval for Chevron Resources Company's Vernal Phosphate Operations. An abbreviated version of your Mining and Reclamation Plan (MRP) will now be published for the required 30-day public comment period pursuant to Rule M-4. Chevron Resources' MRP will be in full compliance with the Utah Mined Land Reclamation Act of 1975 (Title 40-8) upon satisfaction of the following conditions:

- A. No adverse public comment of a substantive nature is received by the Division regarding this operation. If adverse comment is received, it must be resolved per Rule M-4 prior to issuance of final approval.
- B. All information requested in this letter is satisfactorily addressed by Chevron Resources Company, as expressed below.
- C. An acceptable amount and form of bonding is provided to the Division upon approval by the Board of Oil, Gas and Mining.

As indicated in B above, written satisfaction by Chevron Resources Company is required for the following items:

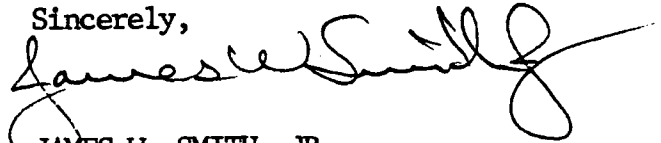
1. The "Topsoil Suitability Criteria and Existing Conditions" table (page 15) should be upgraded to include soil texture under the suitability criteria as discussed on December 6, 1983. Also, the good range for soil pH should be changed to lower the upper end from 8.8 to 7.8.

2. The operator should indicate the depth to which overburden will be ripped prior to topsoil redistribution.
3. Topsoil volumes should be substituted for weight in Table 1.
4. Soil data provided in Appendix 5 should be clearly identified, with sample locations shown on maps.
5. A soil sampling program to be initiated after soil redistribution, adequate to use as a basis for making fertility recommendations should be provided. Also, the method of fertilizer application in the second year should be provided to demonstrate how existing vegetation will be protected during application procedures.
6. A program which ties together existing, and future, test plots aimed at providing remedies to the topsoil deficit and supporting the proposed 3-inch topsoil replacement depth should be submitted. This program should focus on the use of tailings sands, McIntyre Tongue Formation material (borrow source), and organic amendments as topsoil supplements. Use of the 3-inch redistribution depth proposed in Table 5 (page 18) must be validated by appropriate field trials. Possibly, incorporating limited soil with sand organic amendments and overburden would be a valid test condition.
7. The applicant has proposed using one success standard for all reclaimed areas (MRP p. 14). Since there are two basic premining habitat types and four different seed mixes proposed for reclamation, there could be quite a bit of variation in the ground cover of reclaimed areas. The applicant may request a different success standard(s) in the future based on data collected during prestripping vegetative analysis and revegetation success monitoring in different areas.
8. The application states that yearly analysis of reclaimed areas will be conducted to evaluate success for bond release (MRP page 14). Please elaborate on whether all reclaimed areas (vs. only those reclaimed more than three years prior) will be monitored yearly and what specific methods and/or statistical analyses will be used to determine if the revegetation success standard has been met.
9. When will shrub seedlings be planted in relation to the reseeding of reclaimed areas? Will successs of these plantings be monitored along with ground cover monitoring (i.e., will survival and/or shrub density be sampled)? Will new seedlings be planted if a certain survival rate is not achieved? Please elaborate.

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Should you have any questions or comments regarding the above requirements please contact me or Tom Portle. Upon satisfaction of these items final approval will be issued.

Sincerely,



JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

JWS:TLP:re

cc: P. Grubaugh-Littig, DOGM  
D. Darby, DOGM  
S. Linner, DOGM  
D. Hedberg, DOGM  
T. Portle, DOGM